



Review Article

GENERAL TREATMENT PROTOCOL OF POISONING AND TWENTY FOUR TREATMENT MODALITIES BY ACHARYA CHARAK - A REVIEW

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ABSTRACT

Ayurveda has its own way of approach towards the management of *Visha* (Poison), *Agadtantra* is a special branch of *Ashtang* Ayurveda having its own importance in *Visha Chikitsa*. A general principle of treatment of poisoning is explained in Ayurvedic Samhitas (Treatises) like *Charaka*, *Sushruta* and *Vagbhata*. *Acharya Charak* has explained Twenty four modalities in the treatment of poisoning irrespective of animate or inanimate poisoning. Other scholars have stated specific treatment in the poisoning cases but still 24 modalities retains its importance. Toxicology also explains general treatment protocol for management of poisoning. The Protocol consists of vital establishment, removal of poison, use of antidote, general and psychiatric care of patient. But due to complexity of poisoning cases; General Treatment protocol becomes the guideline for the further management. When we compare both Ayurveda and modern medicine with respect to this aspect, we find that all these principles which are suggested by modern medicine are already described in Ayurvedic Samhitas before thousands of years. *Chaturvimshati Upakrama* (24 modalities) are like the treatment principle which directs the actual treatment regime in individual cases. General treatment protocol of poisoning is the modern replica of *Acharya Charak's Chaturvimshati Upakarama*. A comparison of twenty four modalities with the general treatment protocol of poisoning is attempted in this review article.

KEYWORDS: Protocol, *Agadtantra*, Modalities, Poisoning, *Upakrama*, *Charak*.

INTRODUCTION

Agadtantra is one of the eight branches of Ayurveda; contributing some unique concepts in the ocean of Ayurvedic treasure. Concepts like *Gara Visha* (Adverse Drug reactions) and *Dooshi Visha* (Cumulative poisoning) and *Chatur Vimshati Upakrama* (Twenty four modalities) are explained by *Acharya Charak*.^[1] A general principle of treatment of poisoning is explained in *Charaka samhita*, *Sushruta samhita*, *Ashtanga Sangraha* and *Ashtanga Hridaya*. *Charaka samhita* in which it has mentioned manifestation and treatment of *Sthavara visha* (Inanimate poison) *Vega* and *Jangama visha* (animate poison) *vega* commonly together. But *Sushruta samhita*, *Ashtang Sangraha* and *Ashtang Hridaya* describes *Sthavara visha vega* its manifestation and treatment at one place and *Jangama visha vega* its manifestation and treatment in *Sarpavisha* (snake poison). *Charaka samhita* has explained *Chaturvimshati Upakrama* (Twenty four modalities) of treatment of poisoning which is also used in different *Visha vega* (poisoning impulses) and its

treatment. So these twenty four modalities of treatment of poisoning described in *Charaka* can be used as unique immortal principles of Ayurveda.^[2] *Acharya Charak* and *Acharya Vagbhat* had specified that poison cannot damage tissue without entering into the blood stream. So the purpose of *Chaturvimshati Upakrama* was to restrict, disintegrate, neutralize and excrete the poison from the body.^[3] A general principle of treatment of poisoning is mentioned in *Brihatrayee* (Main Treatises of Ayurveda) like *Charaka*, *Sushruta* and *Vagbhat*. In *Charaka samhita* twenty four modalities of treatment of poisoning are explained which can be used as general principles of treatment of poisoning in *Sthavara* and *Jangama visha* (Inanimate and Animate poisons). In modern medicine general principles of treatment of poisoning is explained in different Toxicology textbooks.^[4] Twenty four modalities is the exclusive contribution of *Acharya Charak* in the field of *Agadtantra*.

Acharya Charak spared only one chapter for whole toxicology curriculum; i.e. chapter 23 of *Chikitsasthana* of *Charak Samhita* (Ayurved Treatise). The verse says,

मन्त्रारिष्टोत्कर्तननिष्पीडनचूषणाग्निपरिषेकाः ।
 अवगाहरक्तमोक्षणवमनविरेकोपधानानि ॥
 हृदयावरणाञ्जननस्यधूमलेहौषधप्रशमनानि ।
 प्रतिसारणं प्रतिविषं संज्ञा संस्थापनं लेपः ॥
 मृत सञ्जीवन मेव च विंशति रते चतुभिरधिकाः ।
 स्युरूपक्रमा यथा ये यत्र च योज्याः शृणु तथा तान् ॥

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Table 1: Probable translation of *Chaturvimshati Upakrama*

Sr. No.	Treatment Measure	Probable Translation
1.	<i>Mantra</i>	Chanting Mantras (Hymns)
2.	<i>Arishta bandhana</i>	Application of Tourniquet
3.	<i>Utkartana</i>	Incision over the bite excluding the vital points
4.	<i>Nishpeedana</i>	Compression
5.	<i>Achushana</i>	Sucking through the site
6.	<i>Agnikarma</i>	Thermal cauterization
7.	<i>Parisheka</i>	Sprinkling water
8.	<i>Avagaha</i>	Water bath
9.	<i>Rakta mokshana</i>	Blood letting
10.	<i>Vamana</i>	Emesis
11.	<i>Virechana</i>	Purgation
12..	<i>Upadhana</i>	Medication on incised scalp
13.	<i>Hrudayavarana</i>	Protection of heart
14.	<i>Anjana</i>	Medicated collyrium
15.	<i>Nasya</i>	Medicated nasal insufflations
16.	<i>Dhuma</i>	Medicated smoking
17.	<i>Leha</i>	Medicated linctus's
18.	<i>Aushadha</i>	Anti-poisonous drugs
19.	<i>Pradhamana</i>	Medicated snuffing
20.	<i>Pratisarana</i>	Local applications
21.	<i>Prativisha</i>	Specific antidotes
22.	<i>Sadnya Samstapana</i>	Resuscitation
23.	<i>Lepa</i>	Application of medicated pastes
24.	<i>Mruta Sanjeevana</i>	Revival Therapy

Mantra: *Mantra* acts a moral boosting activity on human beings. A very vast research is going on in the foreign countries on *Mantra Chikitsa*. *Satwavajay Chikitsa* (Psychotherapy) is given importance *Trividha Chikitsa*. And to achieve *Satwavajay Chikitsa* Acharya Charak have stated to use various *Mantra* (Hymns). Even modern science has also introduced the music therapy. The science is mainly depend on the basics of *Mantra* only.^[5]

As these modalities are based on scientific approach, it's the time need to apply and see the realism of this treatment. This will definitely help to prove the Ayurveda in emergency services also.^[6]

General Treatment Protocol in the Management of poisoning

Toxicology is the science which deals with poisons with reference to their sources, properties, mode of action, symptoms which they produce, lethal dose, and nature of fatal results, treatment, methods of their detection and estimation and autopsy finding.^[7] Great contributors of toxicology has quoted so many aspects of general treatment protocol of poisoning management.^[8] As we go through protocols they can be summarized as following:

- Stabilization and Evaluation
- Removal of poison
- Use of Antidotes

- General Care
- Psychiatric Care of patient

Stabilization of vitals of patient so as to keep him alive at least for the treatment instillation which will further reflect as life saving. Before instilling the treatment we must evaluate the patient's condition so that proper treatment module can be administered to the patient which will in turn be beneficial. Patency of Airway, Establishment of Breathing, Continuous unobstructed circulation and CNS in the alert stage increases the prognosis of patient.^[9]

Removal of poison includes absorbed as well as unabsorbed poisons. Depending on the condition of the patient and the stage of poisoning the proper schedule can be administered. Many a times poison spilt on the bodily surface of patient may go undetected. But that can become the source of repeated poisoning i.e. contact poisoning. So, decontamination of such portions is necessary part of treatment protocol.^[10]

Antidotes: A substance which impedes the action of poison by its presence is called as antidote. These can be physical, chemical, physiological and universal.^[11] Unfortunately only 5% of specific antidotes are available for poisoning conditions.

General care includes the symptomatic treatment and overall general care so as to maintain

patients at optimal state. In that psychiatric care is very much necessary so as to avoid further exposure through suicidal attempts. General and psychiatric care also contributes to the rehabilitation of such patients and to reinstate them in their social life again.^[12]

DISCUSSION

Ayurveda science is very much old as we know up to 5000 years back. In that era *Acharya Charak* said the modalities in terms of encountering the poisonous conditions. As we go through the original verse, last line is very much important.

स्युरूपक्रमा यथा ये यत्र च योज्याः शृणु तथा तान् ॥

It suggests that, depending on the patient's condition and with patient's evaluation physician should choose the proper modality wisely. The same is applicable with the general treatment protocol. The said order can be rearranged as per the need.

Acharya Charak has said these modalities for both *Jangam* (Animate) and *Sthavar* (Inanimate) poisons.

As we go through the *Chaturvimshati Upakrama* (24 treatment modalities) told by *Acharya Charak* and General Treatment Protocol in the management of poisoning we find that both are closed correlative as follows:

Table 2: Correlation of General Treatment Protocol and *Chaturvimshati Upakrama*

Treatment Protocol	Upakrama	Purpose	Total
Stabilization and Evaluation	24, 22, 13	Establishment of vitals	3
Removal of Poison	2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Restricts the entry of the poison in to the systemic circulation and Elimination therapy	10
Use of Antidotes	12, 18, 19, 20, 21	Counteracting Medications/ Antidotes, etc.	5
General Care	14, 15, 16, 17, 23	Supportive, Symptomatic treatment	5
Psychiatric Care	1	To relieve mental agony, assurance to patient	1
	Total		24

First and foremost important principle is to establish the vitals; 'ABCD' i.e., Airway, Breathing, Circulation, Depression of CNS. *Acharya Charak* has stated such modalities long back as *Mruta Sanjeevan* (Revival) can be taken as revival of patient from coma. *Hrudayavaran* (protection of Heart) also affect circulation. *Acharya Charak* also gave the importance for vital protection in the treatment regime.

Removal from the exposure is the key part of treatment aspect including contact poisoning. In that manner only removal of poison irrespective of absorbed or unabsorbed can be achieved by the *Upakrama* (modalities) stated above. *Upakrama* 2 to 8 restricts entry into systemic circulation so as to increasing the fate of treatment. And if it gets entry any further then that can be managed by the emesis,

purgation, etc. like measures. *Acharya Charak* has quoted some procedures which are not practiced now a days e.g. Tourniquet application, incision, etc, but in remote hilly areas where medical facility is not available; such procedures can be used in good faith of patient. Training of such procedures can be given to such population as first aid measure in such cases in order to avoid undesired effects on patient's life.

Ayurved treatises have described specific antidotal preparations (*Agad*) in various poisoning cases. 96 Antidotal formulations have been described in the sole context of Snake poisoning. In 24 modalities we can find such antidotes and their various forms of administration.

After instilling the main treatment regime, most of the cardinal symptoms may relieve but

General symptomatic care of patient can be achieved by nasal medication, eye drops, and medicated smoke, etc.

Poisoning patient always presents with anxiety, mental agony which influences the rapid action of poison by accelerating the blood pressure. Here assurance plays the important role on the psych of patient relieving him from the anxiety. *Acharya Charak* has stated *Mantra Chikitsa* (Hymns) as the foremost modality. As those times it may have been a powerful tool to encounter poisonous conditions. But now days, it doesn't have the legal support. So in other aspect, *Mantra Chikitsa* (Hymns) can be used for the psychiatric care of patient.

CONCLUSION

Though *Acharya Charak* have contributed only one Chapter for whole toxicology section, *Chaturvimshati Upakrama* is the major portion which covers the whole toxicology. In other *Samhitas* we find whole section is dedicated to Toxicology. So we may say that, after *Charak* period there is detailed revelation of the poisons and their counter acting measures. But still *Chaturvimshati Upakrama* holds their importance as it is by becoming the guiding light in such cases. *Chaturvimshati Upakrama* is like the treatment principle which directs the actual treatment regime in individual cases.

Toxicologists also says that, now days poisoning cases are becoming so much complex. As there is combination of poison consumed by the patient, it gets difficult to administer the specific treatment. Hence in that case the general treatment protocol in the management of poisoning becomes the guideline.

With such comparison we can conclude that, General Treatment Protocol of poisoning is the modern replica of *Acharya Charak's Chaturvimshati Upakrama*.

REFERENCES

1. Shastri SN, Shastri K. Chikitsasthana. In: Charak Samhita. Varanasi, U.P.: Chaukhambha Bharati Academy; 2006. p. 631.

2. Kasture JP, Takale SM, Upadhyay RS. A Literary Review of Lepa Chikitsa w.s.r. to Chaturvimshati Upakrama. International Journal of Applied Ayurved Research. 2016; 2(7); 980-984
3. Mangal K, Rana S, Chauhan P, Tiwari R.C. Charak's Chaturvimshati Upakrama and its Contemporary View. World Journal of Pharmacy and Pharmaceutical Sciences. 2018; 7(4); 294-304
4. Pawade U.V. General Principles of Treatment of Poisoning in Ayurveda and Modern Medicine: A Conceptual Study. International Ayurvedic Medical Journal. 2015; 3(10) 3004-3014
5. Bagali SS, Baragi UC, Deshmukh RA. Concept of Satwavajay Chikitsa (Psychotherapy). Journal of Ayurveda and Integrated Medical Sciences. 2016; 1(1); 56-63
6. Sonali C. Application of 24 Upakrama of Charak in Modern Era. Journal of Indian System of Medicine. 2014; 2(2); 78-83
7. Dr. C.K. Parikh, Parikh's Textbook of medical jurisprudence Forensic medicine and Toxicology; Reprint edition, CBS Publishers and Distributors, Delhi; Section VIII, Clinical and Forensic toxicology, Q.8.01,2002,p.8.1.
8. Modi JP. Modi's Textbook of Medical Jurisprudence and Toxicology. 24th ed. Kannan K, Mathiharan K, editors. Nagpur: Lexis Nexis Butterworths Wadhwa; 2012. p. 22.
9. Reddy KSN. The Essentials of Forensic Medicine and Toxicology. 29th ed. Saleemnagar Malakpet, Hyderabad: K. Suguna Devi; 2010. p. 460.
10. Pillay VV. Modern Medical Toxicology. 4th ed. New Delhi: Jaypee Brothers Medical Publishers; 2013. p. 10.
11. Parikh CK. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology. 7th ed. Subrahmanyam BV, editor. New Delhi: CBS Publishers and Distributors, Pvt. Ltd.; 2016. P. 575.
12. Vij K. Textbook of Forensic Medicine and Toxicology. 6th ed. New Delhi: Reed Elsevier India Pvt. Ltd.; 2014. P. 416-417.

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